



SDSU Troops to Engineers SERVICE

*Success in Engineering for
Recent Veterans through
Internship and Career
Experience*

Build Your **FUTURE**. Become an **ENGINEER**.

California will face a *shortfall of approximately 40,000 engineers* by 2014.

Engineering graduates currently earn twice as much as non-engineering graduates right out of college.

Veterans are *3 times more likely to choose engineering careers* because they come from technical environments and possess the self discipline needed to succeed. Local high-tech and bio-tech *companies want engineers who are veterans* because they have the practical experience, maturity and leadership skills that make them valuable additions to any work team.

Visit your Navy College Office today to enroll in pre-engineering courses offered on base or at a local Community College. Start building your better future today.

Contact the Troops to Engineers SERVICE program at San Diego State University:

619-594-5849, or preily@projects.sdsu.edu.

Engineering Programs:

Undergraduate:

- Aerospace
- Civil
- Computer
- Construction
- Electrical
- Environmental
- Mechanical

Graduate:

- Aerospace
- Bioengineering
- Civil
- Electrical
- Environmental
- Mechanical

Troops to Engineers SERVICE

(Success in Engineering for Recent Veterans through Internship and Career Experience)

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San Diego is “ground zero” for veterans’ successful transition to civilian careers. In February, 2011, SDSU launched a highly successful pilot program called Troops to Engineers SERVICE (Success in Engineering for Recent Veterans through Internship and Career Experience). **Premise:** career-enhancing, paid internships are the key to a successful transition from military to civilian careers; and, the program presents a **“win, win, win” solution to a local and national problem.** A win for industry that needs highly qualified candidates for engineering jobs. A win for young veterans because they get jobs. A win for our region and the country because employed veterans pay taxes and give back to their communities in numerous ways. The program provides support for young veterans who have honorably served their country at a time when joblessness among young veterans is at an unprecedented high.

Goals and evaluation of the program

Goal #1: To place 100% of SDSU student-veterans seeking career assistance into paid internships and full time jobs upon graduation. (**Results.** GOAL ACCOMPLISHED! As of September 2012, 55 student-veterans were placed in internships or full time, salaried, jobs. All of the student veterans who had internships received full time jobs when they graduated, most stayed with the employers where they interned. Most of the veterans enrolled in the program are OIF or OEF veterans and one third are VA classified as Wounded Warriors (disability rating of 30% or greater.) The program accomplished this goal at a cost of \$3,222 per veteran—far less than most programs that focus on veterans’ employment. In addition companies received tax incentives (between \$2,400 and \$9,600) for each veteran they employed full time through the national Vow to Hire a Hero’s Act passed by Congress in 2011.

Goal #2: Increase the number of veterans pursuing degrees and careers in Engineering and other STEM (Science Technology Engineering Math) majors. (**Results.** E-mail and phone inquiries from prospective student-veterans about the program have increased from one per week in May 2011 to two per day in September 2012. Most veterans are transfer students from Community Colleges, therefore it will take one to three years to evaluate the increase of veterans in the College of Engineering at SDSU. Interest in the program has increased steadily with 81 student veterans actively enrolled in the program in November 2012 as compared to 57 in May 2012, and 29 in May 2011.)

Goal #3: Create a regional and national model of a program that will increase the number of veterans pursuing careers in engineering across the country. (**Results.** Focus groups and individual interviews were conducted in September 2012 with student veterans returning from summer internships and some of their employers. The results were overwhelmingly positive from both students and employers. The program director is in the

process of writing a paper reporting these results and best practices for duplicating the program at other universities with similar conditions.)

Goal#4: Stabilize program funding through grants from industry and other organizations. **(Results.** The program has received funding from the following companies in 2011 and 2012: Northrop Grumman (\$100,000), SDG&E (\$10,000), Cubic (\$10,000), General Dynamics (\$5,000), Lockheed Martin (\$8,000).

List of Companies employing veterans:

SPAWAR, L-3, Northrop Grumman, Cubic, Kevcon, Nova, Dokken, Leighton and Associates, Brady and Associates, Power Engineering, SDG&E, Hamilton Sundstrand, General Dynamics (NASSCO), Qualcomm, Solar Turbines, Sony, NAVAIR, SDSU, Seabotix, Linear, General Atomics, Assure Controls, Inova, Invetech, Lockheed Martin, NAVFAC, United Launch, RORE, Harper, Ambient, Continental Controls, NOVA Engineering and Environmental, Sony, Secure Wireless, Navy (AOCS), D3 Technologies

Troops to Engineers SERVICE Metrics (February, 2011 to September, 2012)

| Troops to Engineers SERVICE | Student-veterans in engineering Internships or permanent jobs | Student-veterans desiring internships or full time jobs after graduation | Other Commitments e.g. reserves, Summer school | Unknown |
|------------------------------------|--|---|---|----------------|
| Current Students (55) | 41 | 0 | 9 | 5 |
| Graduates (15) | 14 | 0 | 0 | 1 |
| Total (70) | 55 | 0 | 9 | 6 |